

The first botanical record for Australia

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Summary

Windolf J.F.P. (2000). The first botanical record for Australia. *Austrobaileya* 5(4): 721–723. Notes on the first identification and written record of a botanical species, *Ximenia americana*, in the Commonwealth of Australia on 21st September 1606, probably at Long Island, Torres Strait, as well as the historical background of the circumstances of its notation.

Key words: Prado, *Ximenia americana*, Torres Strait, Queensland, Australia

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Introduction

Throughout the botanical world the initial record of a particular species in any defined geographical or ecological region is a matter of some importance, from both the scientific and historical point of view. When such an event relates to the first record of any kind for an entire continent it takes on a much more significant role. Australia is fortunate in that many of the log books and diaries of early European expeditions to this continent have been preserved, and that their writers were men of sufficient intellect to take a genuine interest in the area's natural science and to record what they saw.

Historical background

The first proven European sighting of what is now known as Australia was made by the Dutchman Willem Jansz and his crew in March 1606 on the west coast of Cape York Peninsula. Although a map relating to their activities is still in existence, and we know from secondary sources that they landed in several places and explored a considerable section of coastline, there is no known contemporary written account of the expedition (Sharp 1963:17 & Whittaker et. al. 1975:196), and it is necessary to examine subsequent voyages to determine who was the first to leave a record of his exploits in the Australian region.

Some six months after Jansz, in September 1606, the Spanish navigator Luis Vaez de Torres

traversed the strait separating Australia and New Guinea, now named in his honour. Torres was originally the second-in-command to Pedro Fernandez de Quiros in what is generally referred to as the 1606 Spanish South Seas Expedition. The prime purpose of the expedition was to continue the search for the supposed southern continent then believed to exist in the South Pacific. After crossing the Pacific from Callao, Peru, and spending some time in Espiritu Santo, Vanuatu, the fleet became separated. Quiros returned to Acapulco, Mexico, in the San Pedro y San Pablo while Torres set out for Manila in the Philippines with the other two ships, the San Pedro and a smaller vessel called Los Tres Reyes, during which time he sailed along the south coast of New Guinea, discovering the strait now named after him in the process.

There are two extant manuscripts describing this section of the expedition: a formal letter that Torres wrote to King Philip III of Spain soon after his arrival in Manila on 22 May 1607, and an extensive relation penned by an *entretenido*, or “gentleman volunteer”, named Don Diego de Prado y Tovar (Don Diego de Prado y Tovar orig. ms.. Stevens 1930 & Windolf in prep.) who was on board the San Pedro during this period, and it is in this account that we find the first record of an identifiable botanical species from what is now Australia. Prado had no known official designated capacity on board, but he was an astute observer of many aspects of the natural world, and made numerous notes on his observations.

Dating and location of the observation

The expedition had entered what is now Australian territory on or about 11 September 1606 (Gregorian dating). They spent the next three weeks finding a way through the maze of islands, reefs and sandbars that fill Torres Strait before exiting into the Arafura Sea on 4 October 1606. This dating is based on the date in Peru carried westward without any correction for crossing the International Date Line, and as such is one day behind Australian Eastern Standard Time (AEST). It can be independently verified due to an eclipse of the moon, which Prado recorded. The details of this eclipse have been calculated, and it occurred on 16 September GMT, or 15 September Ship Time (Kelly 1966:255). It is a relatively simple matter to assign dates to their day-to-day activities at this time in relation to this eclipse, and we find that the relevant botanical discovery took place in the late afternoon of Thursday 21 September 1606AEST.

Several researchers have attempted to plot the expedition's route through the strait, but due to a variety of reasons no universal consensus has been arrived at. Prado named the island concerned Isla de Vulcan (Volcan Quemado, because of the amount of pumice stone that they saw there, the English translation of the Spanish name being "Island of Extinct Volcano". (Stevens 1930:163 & Windolf in prep.). Unbeknown to them, this pumice had nothing to do with the geology of the island itself, having been borne there on ocean currents. The best known attempt to identify individual islands is that by Brett Hilder (Hilder 1980), who thought that Volcan Quemado was probably Long Island (Hilder 1980:81). However, because of the topographical similarities between many of the islands in central Torres Strait, and the often less than comprehensive description of their appearance given by Prado, the present author considers that the exact identification of Volcan Quemado remains unresolved. Identification of the general area, however, presents no problem, and there is no doubt that the site of the observation is well within the boundaries of the State of Queensland.

The species

The species noted by Prado is identified as *Ximenia americana* L. It is widespread in tropical regions (Willis 1973:1232) and in the Americas is often referred to as the Nicaraguan Plum. This is an important point in its identification when relying on Prado's own words describing the plant:

...hallamos...muchos arboles de siruelas que llaman de nicaragua, son de grande guesco y poco carne.

(Prado, orig. ms. & Stevens 1930:162).

This is translated as: "...we found...many plum trees that are named after Nicaragua: they have large stones and little flesh." (Windolf in prep.).

Ximenia americana is a scrambly shrub or small tree up to 5 m tall, the fruit being a typical plum-like, pyriform or globular drupe, yellow in colour. On islands, and near the coast, it tends to grow on sand dunes and in forests on the landward side of mangroves (George 1984:15-16). Long Island (10° 02'S 142° 51'E) itself is generally low and swampy, but heavily wooded. The main island lies on the northwestern end of the Long Island Reefs complex and there are a number of small mangrove-covered islets along the northern and northeastern sides of the reefs (NP15 1973:233). The species has been collected from three islands in Torres Strait (Dauan, Yorke and Murray) in modern times as well as from numerous localities in tropical Queensland and New Guinea (Pers. comm. Queensland Herbarium).

The fruit is considered edible, but is reported as sometimes being purgative. It contains appreciable quantities of oil rich in ximenic acid (George 1984:16). Cribb states that the fat extracted from the seeds is used as a substitute for ghee in parts of India (Cribb 1982:46). It is not known whether it was used for this purpose in the Americas, or whether the Torres Strait Islanders or Australian Aborigines used it as a food source.

The genus is named after Francisco Ximenes, a Spanish naturalist who wrote extensively on the subject of medicinal plants in the early sixteen-hundreds.

This species is relatively common in tropical America and Prado was probably familiar with it there. Given the confidence of his statement, the correlation between his description and the actual appearance of the fruit, and the ecological and geographical affinity with sites where *Ximenia americana* is known to occur, there seems no reason to question the correctness of his identification.

Conclusions

It is considered proven that the first recorded identification of any botanical species in the Commonwealth of Australia was that of *Ximenia americana* L., made by Don Diego de Prado y Tovar on Thursday 21 September 1606 AEST (Gregorian dating) in Torres Strait, possibly on Long Island, in the botanical district of Cook, Queensland.

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